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| APPLICATION NO.                                     | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-------------------------|---------------------|------------------|
| 10/820,067  | 04/08/2004  | Jessica Baker Flechtner | 8449-406-999        | 7221             |
| 20583   | 7590        | 09/21/2006              | EXAMINER            |                  |
| JONES DAY<br>222 EAST 41ST ST<br>NEW YORK, NY 10017 |             | BLUMEL, BENJAMIN P      |                     |                  |
|   |             | ART UNIT                |                     | PAPER NUMBER     |
|   |             | 1648                    |                     |                  |

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/820,067             | FLECHTNER ET AL.    |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Benjamin P. Blumel     | 1648                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 08 April 2004.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-4, 11-14 and 28-43 is/are pending in the application.  
 4a) Of the above claim(s) 30, 31, 33, 34, 37 and 38 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4, 11-14, 28, 29, 32, 35, 36 and 39-43 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 4/12/06 & 7/14/06.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: Notice to Comply.

**DETAILED ACTION**

Applicant is notified that Benjamin P. Blumel, whose contact information is stated below, will conduct further examination of the instant application.

***Election/Restrictions***

During a telephone conversation between previous examiner Peter Reddig and Richard Edman on behalf of Adriane M. Antler the Attorney of Record on August 28, 2006 a provisional election was made with traverse to prosecute the invention of a herpes virus as an infectious agent, claims 1 and 11. Affirmation of this election must be made by applicant in replying to this Office action. Claims 30, 31, 33, 34, 37 and 38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant's election of group I in the reply filed on July 14, 2006 and herpes virus as an infectious agent in a telephone conversation explained above is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement or the telephone conversation, the election has been treated as an election without traverse (MPEP § 818.03(a)). Therefore, election/restriction is made FINAL.

***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on April 10, 2006 and July 14, 2006 were filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is

being considered by the examiner. A copy of reviewed IDS sheets are included in this Office Action.

***Objections***

***Specification***

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth below or on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures.

The specification is objected to because the drawing description do not indicate which SEQ ID No: pertains to each amino acid sequence depicted in drawing 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 11-14, 28, 29, 32, 35, 36 and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wieland et al. (US PGPub# 2004/0071656).

The claims are drawn to a hybrid antigen composition of an antigenic domain of a herpes virus linked to hsc70, a member of the heat shock protein

family, via a non-covalent interaction with Phe Phe Arg Lys or FFRK (SEQ ID No. 699). This composition also contains adjuvants.

Wieland et al. teaches a composition of a heat shock protein non-covalently linked to an antigen via a polypeptide that can be used in inducing an immune response in a mammal. The polypeptides vary in length (5 being smallest) and composition. Wieland et al. further discloses an infectious disease antigen such as herpes virus as part of a hybrid molecule non-covalently linked to a heat shock protein such as hsc70, which also function as an adjuvant. See paragraphs 12, 13, 19, 20, 64, 65, 113, 130, 147 and SEQ. ID NOs: 2-317. Even though Wieland et al. does not teach using the specific polypeptide of SEQ. ID NO: 699, the different sizes and compositions among those polypeptides described by Wieland et al. would motivate one in the art to use multiple polypeptide sequences in developing a hybrid antigen bound to hsc70.

### ***Summary***

No claims are allowed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin P. Blumel whose telephone number is 571-272-4960. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on 571-272-1600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Benjamin Blumel  
Patent Examiner



BRUCE R. CAMPBELL, PH.D  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

|  |   |  |                           |              |                                    |              |
|--|---|--|---------------------------|--------------|------------------------------------|--------------|
| <b>Notice to Comply</b>  | <b>Application No.</b><br><b>10/820,067</b> | <b>Applicant(s)</b><br><b>Flechtner et al.</b> |                           |              |                                    |              |
|  | <b>Examiner</b><br><b>Benjamin Blumel</b>   | <b>Art Unit</b><br><b>1648</b>                 |                           |              |                                    |              |
| <b>NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS<br/>CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE<br/>DISCLOSURES</b>  |   |  |                           |              |                                    |              |
| <p>Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).</p> <p>The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):</p> <p> <input type="checkbox"/> 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).     </p> <p> <input type="checkbox"/> 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).     </p> <p> <input type="checkbox"/> 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).     </p> <p> <input type="checkbox"/> 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."     </p> <p> <input type="checkbox"/> 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).     </p> <p> <input type="checkbox"/> 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).     </p> <p> <input checked="" type="checkbox"/> 7. Other: The disclosure and claims are missing numbers SEQ ID NO:s, see attached Action under Sequence Compliance.     </p> <p><b>Applicant Must Provide:</b></p> <p> <input type="checkbox"/> An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".     </p> <p> <input type="checkbox"/> An initial or substitute paper copy of the "Sequence Listing", <b>as well as an amendment specifically directing its entry into the application.</b> </p> <p> <input type="checkbox"/> A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).     </p> <p>For questions regarding compliance to these requirements, please contact:</p> <p>For Rules Interpretation, call (703) 308-4216 or (703) 308-2923</p> <p>For CRF Submission Help, call (703) 308-4212 or 308-2923</p> <p>PatentIn Software Program Support</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding-right: 10px;">Technical Assistance.....</td> <td style="width: 40%; text-align: right; padding-right: 10px;">703-287-0200</td> </tr> <tr> <td style="width: 60%; padding-right: 10px;">To Purchase PatentIn Software.....</td> <td style="width: 40%; text-align: right; padding-right: 10px;">703-306-2600</td> </tr> </table> <p><b>PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR REPLY</b></p> |   |  | Technical Assistance..... | 703-287-0200 | To Purchase PatentIn Software..... | 703-306-2600 |
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